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## UNITED STATES OF AMERICA POSTAL REGULATORY COMMISSION WASHINGTON, DC 20268-0001

Periodic Reporting (Proposal Six)

Docket No. RM2020-13

## CHAIRMAN'S INFORMATION REQUEST NO. 1

(Issued October 5, 2020)

To clarify the Postal Service's petition to consider proposed changes in analytical principles, filed September 15, 2020, the Postal Service is requested to provide written responses to the following questions.<sup>1</sup> The responses should be provided as soon as they are developed, but no later than October 14, 2020.

- The Postal Service states that "[t]he current mail processing variability methodology has been in place since Docket No. R71-1." Petition, Proposal Six at 2. The Postal Service explains that under the "established methodology in which In-Office Cost System (IOCS) tallies are used to partition the [mail processing] cost pools into activities assumed to be 100 percent volume variable...and other activities assumed to be non-volume-variable." *Id.* at 1. Please provide the documentation that describes the established methodology.
- 2. The Variability Report provides that the estimated extended models "allow for a lagged effect of [Total Pieces Fed (TPF)] on runtime and workhours, as well as seasonal non-volume effects." Variability Report at 20. The Variability Report states "[t]he extended models include the first and the twelfth lags of monthly TPF, the latter being the same month in the previous year." *Id.*

<sup>&</sup>lt;sup>1</sup> Petition of the United States Postal Service for the Initiation of a Proceeding to Consider Proposed Changes in Analytical Principles (Proposal Six), September 15, 2020 (Petition). *See also* A. Thomas Bozzo & Tim Huegerich, Analysis of Labor Variability for Automated Letter and Flat Sorting, Christensen Associates, September 15, 2020 (Variability Report).

- a. Please explain how the lags were determined, and why the decision was made to include two specific lags: the first and the twelfth lags of monthly TPF.
- b. If the Postal Service considered other lagged TPF for inclusion into the extended models, please provide the results of the analysis and explain why other lagged TPF were rejected. If the Postal Service has not considered any other lagged TFP, please explain why not.
- c. Please discuss whether the Postal Service considered any other explanatory variables for the extended workhour or runtime regressions, and if so, please list the variables and explain why they were rejected. If the Postal Service has not considered any other explanatory variables, please explain why not.
- 3. The Variability Report provides that "[t]he accuracy of workhours ... tends to be more variable than processing equipment's operating statistics, though at relatively high levels of aggregation (such as total workhours for major equipment types), USPS believes the data to be relatively accurate." *Id.* at 15.
  - a. Please explain how the Variability Report defines "relatively accurate" in this context and explain the rationale for the Postal Service's belief that the data are "relatively accurate."
  - b. Please refer to the studies, if any, performed within this docket or other dockets previously filed with the Commission that would support the claim that the data are relatively accurate.
- 4. The Variability Report provides that to compute "the elasticities of runtime or workhours with respect to TPF output," it estimates the regression models that have "the log-linear specifications of [the] equations." *Id.* at 20.
  - a. Please discuss the reasons for choosing such a specification for the regression model considering that either runtime or workhours might be equal to zero, and, in these cases, the natural logarithm of runtime or workhours would be undefined.

- b. Please discuss whether the Postal Service tested other model specifications, and if so, why they were rejected. Please provide program files and elasticity estimates if applicable.
- 5. Please refer to Library Reference USPS-RM2020-13-1, September 15, 2020, folder "Analysis" that contains the output log file "analysis.txt" for the "analysis.do" Stata program file. The log file "analysis.txt" includes the following record:

.drop if runtime<=0

(8,206 observations deleted)

- a. Please confirm that 8,206 observations were excluded from the analysis because the runtime was equal or less than zero.
- b. If question 5.a. is confirmed, please:
  - In the instances where runtime was less than zero, indicate the number of such observations, and explain whether they were due to data collection errors or any other reasons;
  - ii. In the instances where runtime was less or equal to zero, but workhours were greater than zero, indicate the number of such observations, and explain why they were excluded from the analysis.
- c. If question 5.a. is not confirmed, please explain the meaning for the cited record in the log file.
- 6. The Variability Report provides that "for the screen at the 5 percent tails," "the regression samples exclude observations where the measured labor productivity is below the 5<sup>th</sup> percentile or above the 95<sup>th</sup> percentile of the distributions of sitementh observations." Variability Report at 21.
  - Please explain the reasons for the chosen criterion for productivity cutoff values.
  - b. Please discuss whether any other criteria for exclusion of extreme values were tested (*e.g.*, below the 3<sup>rd</sup> or above the 97<sup>th</sup> percentile; below the 1<sup>st</sup>

or above the 99<sup>th</sup> percentile) and, if so, why they were rejected. Please provide the results of the formal analysis, if applicable.

- 7. The Variability Report presents the results of the analysis, including summary statistics for regression variables, as well as the regression results for runtime and workhour models. Variability Report, Tables 1 through 4 at 21-24. For data presented in Tables 1 through 4 of the Variability Report, please provide the detailed references to the files in the Library Reference USPS-RM2020-13-1 that were used to perform the underlying calculations. If the underlying calculations were performed in Library Reference USPS-RM2020-13-NP1 only, please provide such references under seal.
- 8. The Variability Report provides that in the workhour "models including lags and monthly dummy variables, [compared to the models without lags and season control variables], the estimated elasticities are slightly higher for DBCS and AFSM 100, and much higher for FSS. FSS tends to have relatively extreme seasonal peaks and troughs in productivity." Variability Report at 23. The Variability Report also provides that "both AFSM 100 and FSS operations consistently show substantially above-trend productivity during the October-November peak period, and correspondingly below-trend productivity in December, when flat workload shows a strong seasonal decline." *Id.* at 16.
  - a. Considering the quoted above statements, please explain why there is a relatively small difference between workhour AFSM 100 elasticities derived from the two referenced above models.
  - b. Please discuss any other factors (not mentioned in the quoted text) that could affect the workhour elasticity estimates for AFSM 100 and FSS operations.
- 9. In Table 2 of the Proposal, the Postal Service provides the proposed variabilities for three types of operations and indicate that these "variabilities would apply to the mail processing portion of the cost pools' accrued costs-*i.e.*, the total accrued

costs of the pools less costs 'migrated' to other components within Cost Segment 3." Petition, Proposal Six at 6.

- Please indicate what other cost segments will be affected by the proposed variabilities.
- b. Please list the library reference(s) of the Annual Compliance Report, and the relevant worksheets that will include the updated variabilities.
- 10. The Variability Report estimates regression models for both machine runtime and workhours, and derives the workhour and runtime variabilities from these models. Variability Report at 20-24. In Proposal Six, the Postal Service discusses the estimation and application of the workhour variabilities only. Petition, Proposal Six at 5-6. Please explain why runtime variabilities are estimated and whether the Postal Service currently proposes (or is going to propose) to use these variabilities in the Cost and Revenue Analysis.
- 11. The Postal Service states that, "the variabilities applied in a given fiscal year would be [re]estimated [annually] using the [data for the] most recent four fiscal years." Petition, Proposal Six at 5. The Postal Service explains that it wanted to ensure that input data reflects "the current state of operations, while presenting adequate sample sizes for the regression models." *Id*.
  - a. Please discuss whether such an approach would be still reasonable going forward considering the potential effects of COVID-19 on Postal Service operations.
  - b. Please discuss whether the Postal Service tested shorter sample periods (e.g., 1, 2, or 3-year periods), and, if so, why these periods were rejected.

By the Chairman.